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EXAMINER	
BATTAGLIA, MICHAEL V	
ART UNIT	**PAPER NUMBER**
2652	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/092,886	SASAKI ET AL.	
	Examiner	Art Unit	
	Michael V. Battaglia	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *17-30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-30* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 (US 6,246,660) in view of Yanagawa '310 (US 6,088,310) and further in view of Matsuoka et al (hereafter Matsuoka) (US 5,267,226).

In regard to claim 1, Yanagawa '660 discloses an optical disc device in which a main beam spot (Fig. 3, element SP0) and sub-beam spots (Fig. 3, elements SP+1 and SP-1) are formed on an information recording surface of an optical disc (Fig. 1, element 1) with irradiation of a laser beam (Fig. 2, element B), and laser power of said laser beam is intermittently boosted to record predetermined data on said optical disc by said main beam spot (Col. 5, lines 4-7 and 27-28), said optical disc device comprising: light receiving means (Fig. 4, element 282) for receiving a return light corresponding to a preceding sub-beam (Fig. 3, element SP+1) of said sub-beam spots, that is formed on a preceding side with respect to a scan direction of said main beam spot (Col. 5, lines 65-67), and outputting a light detection result (Col. 6, lines 22-26 and 34-38). Yanagawa '660 does not disclose that the optical disc device comprises a correcting means for suppressing changes in

signal level of the light detection result caused upon boosting of the laser power of said laser beam, said correcting means including a detector that detects a light output level of a source for said laser beam; or a determining means for determining the light detection result obtained through said correcting means, and detecting a presence of a defect on said optical disc using only the preceding sub-beam of said sub-beam spots.

Yanagawa '310 discloses a correcting means (Fig. 5, element 40 and Fig. 1, element 23) for suppressing changes in signal level of a sub-beam light detection result (Fig. 5, SUBRF) caused upon boosting of the laser power of a laser beam (Col. 6, lines 29-36), said correcting means including a detector (Fig. 1, element 23) that detects a light output level of a source for said laser beam (Col. 5, lines 35-38 and Col. 6, lines 35-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 to comprise the correcting means of Yanagawa '310 as suggested by Yanagawa '310, the motivation being to suppress changes in signal level of the light detection result of Yanagawa '660 caused upon boosting of the laser power of the laser beam of Yanagawa '660.

Matsuoka discloses a determining means (Fig. 3, element 74) for determining a light detection result obtained from a return light corresponding to a preceding sub-beam (Fig. 4, element 64) of sub-beam spots (Fig. 4, elements 63 and 64), and detecting a presence of a defect (Fig. 4, element 56) on an optical medium (Fig. 3, element 1) using only the preceding sub-beam of said sub-beam spots (Col. 6, lines 45-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Yanagawa '310 to comprise the determining means of Matsuoka for determining the light detection result obtained

from the correction means of Yanagawa '310, and detecting a presence of a defect on said optical disc of Yanagawa '660 using only the preceding sub-beam of said sub-beam spots as suggested by Matsuoka; the motivation being to enable the optical disc device of Yanagawa '660 in view of Yanagawa '310 to detect a presence of a defect on the optical disc.

In regard to claim 3, Yanagawa '660 discloses that said sub-beam spots are formed as a pair of beam spots produced on both sides of said main beam spot (Fig. 3); and said sub-beam spot formed on the preceding side is one of said pair of beam spots (Fig. 3), which precedes in both circumferential and radial directions of said optical disc (Fig. 3).

In regard to claim 4, Yanagawa '660 discloses that said sub-beam spots are formed as a pair of beam spots produced on both sides of said main beam spot (Fig. 3); and said optical disc device includes light receiving devices (Fig. 4, elements 282 and 283) for receiving said pair of beam spots, respectively (Col. 6, lines 22-32), and processes light detection results of said light receiving devices to generate a tracking error signal (Fig. 4, element STE and Col. 7, lines 18-40), each of said light receiving devices having a light receiving surface divided by a division line (Fig. 4, elements L2 and L3) extending in the circumferential direction (Fig. 4, "Tangential Direction") of said optical disc (Col. 6, lines 17-32).

In regard to claim 6, Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka discloses the optical disc device according to claim 1 but does not disclose that a writing process is temporarily suspended in a defective area of said optical disc based on a determination result of said determining means.

Matsuoka discloses temporarily suspending a writing process ("auto-focusing" and "auto-tracking" of Col. 6, lines 57-58) in a defective area (Fig. 4, element 56) of an optical disc (Fig. 3,

element 1) based on a determination result of a determining means to promptly relocate main and sub-beam spots on a recording track (Col. 6, lines 56-66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka to temporarily suspend a writing process in a defective area of the optical disc of Yanagawa '660 based on a determination result of the determining means of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka as suggested by Matsuoka, the motivation being to promptly relocate main and sub-beam spots on a recording track.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka as applied to claim 1 above, and further in view of Kanno et al (hereafter Kanno) (US 6,101,163).

Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka discloses the optical disc device of claim 1 comprising the correcting means for suppressing changes in signal level of the light detection result caused upon boosting of the laser power of said laser beam. It is noted that the optical disc of Yanagawa '660 is a DVD-R (Col. 3, line 46) and that a DVD-R is formed with a meandering groove (see Citation of Relevant Prior Art below). Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka does not disclose that the correcting means further suppresses changes in signal level of the light detection result caused by meandering of a groove formed in said optical disc.

Kanno discloses suppressing changes in signal level of a light detection result caused by meandering of a groove formed in an optical disc and teaches that doing so will cancel a wobble

signal caused by meandering grooves which has leaked into a reproduction signal (Col. 5, lines 36-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the correcting means of the optical disc device of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka to suppress changes in signal level of the light detection result caused by the adverse influence of the meandering grooves or wobble that leaks into the light detection result as suggested by Kanno, the motivation being to suppress the adverse influence caused by meandering of a groove in the light detection result.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka as applied to claim 1 above, and further in view of Szerlip (US 4,571,716) and further in view of Roh (US 6,690,633).

Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka discloses the optical disc device of claim 1 but does not disclose that the optical disc device further comprises a power controller that changes an amount of light for writing in a defective area of an optical disc based on a defect determination result of said defect determining means.

Szerlip discloses writing in a defective area of an optical disc, based on a defect determination result, so that a playback or read device will recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction (Col. 4, lines 50-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka to write in a defective area of an optical disc, based on a defect determination result of said determining means of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka as suggested by Szerlip, the motivation being for a playback or read

device to recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction.

Roh discloses a power controller (Fig. 6, element 700) that changes an amount of light for writing in a defective area of an optical disc based on a defect determination result to maintain a constant asymmetric ratio (Col. 6, lines 61-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka and further in view of Szerlip to comprise the power controller of Roh that changes an amount of light for writing in a defective area of an optical disc based on a defect determination result of the determining means of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka and further in view of Szerlip as suggested by Roh, the motivation being to maintain a constant asymmetric ratio.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka as applied to claim 1 above, and further in view of Szerlip.

Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka discloses the optical disc device of claim 1 but does not disclose that an alternative process is executed on data, which is assigned to writing to be made in a defective area of said optical disc, based on a determination result of said determining means.

Szerlip discloses executing an alternative process on data, which is assigned to writing to be made in a defective area of an optical disc, based on a defect determination result, so that a playback or read device will recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction (Col. 4, lines 50-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka to execute an alternative process on data, which is assigned to writing to be made in a defective area of an optical disc, based on a defect determination result of said determining means of Yanagawa '660 in view of Yanagawa '310 and further in view of Matsuoka as suggested by Szerlip, the motivation being for a playback or read device to recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction.

6. Claims 8, 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Matsuoka.

In regard to claim 8, Yanagawa '660 discloses an optical disc device comprising: a light source (Fig. 2, element 21) for emitting a laser beam (Fig. 2, element B); a diffraction grating (Fig. 2, element 23) for generating a main optical beam and at least first and second optical beams from the laser beam emitted from said light source (Col. 5, lines 56-57), and forming a main beam spot (Fig. 3, element SP0) and sub-beam spots (Fig. 3, elements SP+1 and SP-1) on an information recording surface of an optical disc (Fig. 1, element 1), said sub-beam spots include a first sub-beam spot (Fig. 3, element SP+1) that is formed on a preceding side with respect to a scan direction of said main beam (Col. 5, lines 65-67); and a photo detector (Figs. 2 and 4, elements 28 and 282) for receiving a return light corresponding to said first sub-beam spot (Col. 6, lines 22-26), and outputting a light detection result (Col. 6, lines 34-38). Yanagawa '660 does not disclose that the optical disc device also comprises a determination circuit for determining the light detection result of said photo detector, and detecting a presence of a defect on said optical disc using only the first sub-beam of said sub-beam spots.

Matsuoka discloses a determining circuit (Fig. 3, element 74) for determining a light detection result of a photo detector that receives a return light corresponding to a first sub-beam (Fig. 4, element 64) of sub-beam spots (Fig. 4, elements 63 and 64) that is formed on a preceding side with respect to a scan direction of a main beam spot (Fig. 4, element 62), and detecting a presence of a defect (Fig. 4, element 56) on an optical medium (Fig. 3, element 1) using only the first sub-beam of said sub-beam spots (Col. 6, lines 45-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 to comprise the determination circuit of Matsuoka for determining the light detection result of the photo detector of Yanagawa '660, and detecting a presence of a defect on the optical disc of Yanagawa '660 using only the first sub-beam of said sub-beam spots of Yanagawa '660 as suggested by Matsuoka; the motivation being to enable the optical disc device of Yanagawa '660 to detect a presence of a defect on the optical disc.

In regard to claim 11, Yanagawa '660 discloses that said sub-beam spots are formed as a pair of beam spots produced on both sides of said main beam spot (Fig. 3); and said first sub-beam spot is one of said pair of beam spots, which precedes in both circumferential and radial directions of said optical disc (Fig. 3).

In regard to claim 12, Yanagawa '660 discloses that said sub-beam spots are formed as a pair of beam spots produced on both sides of said main beam spot (Fig. 3); and said optical disc device includes light receiving devices (Fig. 4, elements 282 and 283) for receiving said pair of beam spots, respectively (Col. 6, lines 22-33), and processes light detection results of said light receiving devices to generate a tracking error signal (Fig. 4, element STE and Col. 7, lines 18-40), each of said light receiving devices having a light receiving surface divided by a division line (Fig. 4,

elements L2 and L3) extending in the circumferential direction (Fig. 4, "Tangential Direction") of said optical disc (Col. 6, lines 17-32).

In regard to claim 14, Yanagawa '660 in view of Matsuoka discloses the optical disc device according to claim 8 but does not disclose that a writing process is temporarily suspended in a defective area of said optical disc based on a determination result of said determination circuit.

Matsuoka discloses temporarily suspending a writing process ("auto-focusing" and "auto-tracking" of Col. 6, lines 57-58) in a defective area (Fig. 4, element 56) of an optical disc (Fig. 3, element 1) based on a determination result of the determination circuit to promptly relocate main and sub-beam spots on a recording track (Col. 6, lines 56-66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Matsuoka to temporarily suspend a writing process in a defective area of the optical disc of Yanagawa '660 based on a determination result of the determination circuit of Yanagawa '660 in view of Matsuoka as suggested by Matsuoka, the motivation being to promptly relocate main and sub-beam spots on a recording track.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Matsuoka as applied to claim 8 above, and further in view of Inoue.

Yanagawa '660 in view of Matsuoka discloses the optical disc device according to claim 8 wherein the said determination circuit determines a light detection result of said photo detector and detects a presence of the defect on said optical disc. Yanagawa '660 in view of Matsuoka does not disclose that said optical disc device further comprises a correction circuit for suppressing changes in signal level of the light detection result caused upon boosting of laser power of said laser

beam; and that said determination circuit determines the light detection result obtained through said correction circuit.

Inoue discloses an optical disc device (Figs. 23 and 24) comprising a correction circuit (Figs. 23 and 24, element 65) for suppressing changes in signal level of a light detection result caused upon boosting of laser power of a laser beam (Col. 8, lines 37-47; Col. 9, lines 38-41 and 51-59; Col. 21, lines 62-65; and Col. 23, lines 16-19). It is noted that the output of the correction circuit replaces the light detection result from a photo detector of Inoue (Fig. 24, element 31b) as shown by Fig. 24.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Matsuoka to comprise the correction circuit of Inoue as suggested by Inoue, the motivation being to suppress changes in signal level of the light detection result of Yanagawa '660 caused upon boosting of the laser power of the laser beam of Yanagawa '660. It also would have been obvious to one of ordinary skill in the art at the time the invention was made for the determination circuit of Yanagawa '660 in view of Matsuoka to determine the light detection result obtained through the correction circuit of Inoue as suggested by Inoue, the motivation being to determine the light detection result using a light detection result in which signal level changes caused upon boosting of the laser power of the laser beam are suppressed.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Matsuoka and further in view of Inoue as applied to claim 9 above, and further in view of Kanno.

Yanagawa '660 in view of Matsuoka and further in view of Inoue discloses the optical disc device of claim 9 and Inoue suggests removal of adverse influences from the light detection result

(Fig. 24 and Col. 22, lines 16-19). It is noted that the optical disc of Yanagawa '660 is a DVD-R (Col. 3, line 46) and that a DVD-R is formed with a meandering groove (see Citation of Relevant Prior Art below). Yanagawa '660 in view of Matsuoka and further in view of Inoue does not disclose that the correcting circuit further suppresses changes in signal level of the light detection result caused by meandering of a groove formed in said optical disc.

Kanno discloses suppressing changes in signal level of a light detection result caused by meandering of a groove formed in an optical disc and teaches that doing so will cancel a wobble signal caused by meandering grooves which has leaked into a reproduction signal (Col. 5, lines 36-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the correction circuit of the optical disc device of Yanagawa '660 in view of Matsuoka and further in view of Inoue to suppress changes in signal level of the light detection result of Yanagawa '660 in view of Matsuoka and further in view of Inoue caused by the adverse influence of the meandering grooves or wobble that leaks into the light detection result as suggested by Kanno, the motivation being to suppress the adverse influence caused by meandering of a groove in the light detection result.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Matsuoka as applied to claim 8 above, and further in view of Szerlip and further in view of Roh.

Yanagawa '660 in view of Matsuoka discloses the optical disc device of claim 8 but does not disclose that an amount of light for writing is changed in a defective area based on a determination result of said determination circuit.

Szerlip discloses writing in a defective area of an optical disc, based on a defect determination result, so that a playback or read device will recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction (Col. 4, lines 50-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Matsuoka to write in a defective area of an optical disc, based on a defect determination result of said determination circuit of Yanagawa '660 in view of Matsuoka as suggested by Szerlip, the motivation being for a playback or read device to recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction.

Roh discloses changing an amount of light for writing in a defective area based on a defect determination result to maintain a constant asymmetric ratio (Col. 6, lines 61-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Matsuoka and further in view of Szerlip to change an amount of light for writing in a defective area based on a defect determination result of the determination circuit of Yanagawa '660 in view of Matsuoka and further in view of Szerlip as suggested by Roh, the motivation being to maintain a constant asymmetric ratio.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Matsuoka as applied to claim 8 above, and further in view of Szerlip.

Yanagawa '660 in view of Matsuoka discloses the optical disc device of claim 8 but does not disclose that an alternative process is executed on data, which is assigned to writing to be made in a defect containing area of said optical disc, based on a determination result of said determination circuit.

Szerlip discloses executing an alternative process on data, which is assigned to writing to be made in a defect containing area of an optical disc, based on a defect determination result, so that a playback or read device will recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction (Col. 4, lines 50-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the optical disc device of Yanagawa '660 in view of Matsuoka to execute an alternative process on data, which is assigned to writing to be made in a defective area of an optical disc, based on a defect determination result of said determination circuit of Yanagawa '660 in view of Matsuoka as suggested by Szerlip, the motivation being for a playback or read device to recognize that a data signal is being temporarily interrupted due to the defect during a subsequent reproduction.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa '660 in view of Inoue and further in view of Matsuoka.

Yanagawa '660 discloses a control method for an optical disc device in which a main beam spot (Fig. 3, element SP0) and sub-beam spots (Fig. 3, elements SP+1 and SP-1) are formed on an information recording surface of an optical disc (Fig. 1, element 1) with irradiation of a laser beam (Fig. 2, element B), and laser power of said laser beam is intermittently boosted to record predetermined data on said optical disc by said main beam spot (Col. 5, lines 4-7 and 27-28), said method comprising the steps of: obtaining a light detection result (output of Fig. 4, element 282) by receiving a return light corresponding to a preceding sub-beam spot (Fig. 3, element SP+1) that is one of said sub-beam spots and is formed on a preceding side with respect to a scan direction of said main beam spot (Col. 5, lines 65-67); and determining the light detection result (Col. 6, lines 22-26 and 34-38). Yanagawa '660 does not disclose that the control method comprises the steps

of: suppressing changes in signal level of a light detection result caused upon boosting of the laser power of said laser beam; detecting a boost of the laser power of said laser beam; or detecting a presence of a defect on said optical disc using only the preceding sub-beam spot of said sub-beam spots.

Inoue discloses suppressing changes in signal level of a light detection result (Fig. 24, output of element 31b) caused upon boosting of the laser power of a laser beam (Figs. 23 and 24, element 65; Col. 9, lines 38-41 and 51-59; and Col. 23, lines 16-19), the light detection result being obtained by receiving a return light corresponding to a preceding sub-beam spot (Fig. 2, element S2) that is one of sub-beam spots (Fig. 2, elements S2 and S4) and is formed on a preceding side with respect to a scan direction of a main beam spot (Fig. 2, element S3 and Col. 22, line 53); and detecting a boost of the laser power of said laser beam (Col. 10, lines 40-64 and Col. 21, lines 62-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the control method of Yanagawa '660 to suppress changes in signal level of a light detection result caused upon boosting of the laser power of the laser beam of Yanagawa '660 and to detect a boost of the laser power of said laser beam as suggested by Inoue, the motivation being to detect boosting of the laser power of the laser beam of Yanagawa '660 and suppress the resulting changes in signal level of the light detection result of Yanagawa '660.

Matsuoka discloses detecting a presence of a defect (Fig. 4, element 56) on an optical medium (Fig. 3, element 1) using only a preceding sub-beam spot (Fig. 4, element 64) of sub-beam spots (Fig. 4, elements 63 and 64) (Col. 6, lines 45-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the control method of Yanagawa '660 in view of Inoue to detect a presence

of a defect on the optical disc of Yanagawa '660 using only the preceding sub-beam spot of said sub-beam spots of Yanagawa '660; the motivation being to enable the control method of Yanagawa '660 to detect a presence of a defect on the optical disc.

Citation of Relevant Prior Art

12. Honda et al (US 6,266,318) (Col. 1, lines 26-29) and Morita (US 6,207,247) (Col. 13, lines 20-22) disclose that a DVD-R is formed with a meandering groove, a.k.a. wobbling groove or wobble signal.

Response to Arguments

13. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Battaglia whose telephone number is (571) 272-7568. The examiner can normally be reached on 5-4/9 Plan with 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Battaglia

BRIAN E. MILLER
PRIMARY EXAMINER